SPINNER Small Cell Connectors



2.2-5 or NEX10[®] Whatever Happens, We Get You Connected!



We Have You Covered

Engineers relish the challenge of shrinking a system's footprint. And what's not to love about a smaller setup that delivers the same powerful performance? But now that bright minds have come up with two smaller connector sets, 2.2-5 and NEX10®, you're spoiled for choice.

So which way to go if you're ramping up to 5G or looking for superior electrical specs, but do not have a lot of space to spare for connectors? At SPINNER, we say go with whatever system you prefer. Both make excellent choices for

5G, leading-edge antennas, remote radio units, MIMO and small cells. Both feature a contact bushing that mirrors the fundamental design of 4.3-10. And both come with the seal of quality that is the SPINNER brand.









Downsized, but upscale: A comparison of 2.2-5 and NEX10® jumpers with fixed connectors

A Few Thoughts to Help You With Your Decision

2.2-5 is thicker, shorter, more robust, and transmits slightly more power than NEX10®, which counters with a smaller flange for greater packing density on devices and antennas.

The NEX10® moves the contact bushing, a relatively sensitive part, from the device's socket to the jumper's plug. This means that in the event, you only have to swap out an inexpensive jumper rather than a costly antenna or base station. Of course, that also means you need premium jumpers equipped with the best contact bushing available. SPINNER can help you there, too.

So go ahead, compare the specifications in the table on page 3 before you make your choice. And when you do, know this:

Either way, we have you covered.

Keeping You Connected, Today and Tomorrow

This is not the end of the journey toward miniaturization. The next smaller connector system, 1.5-3.5, is ramping up for launch, and we're on board to keep you connected.







Shrinking to fit: 2.2-5, NEX10®, and 1.5-3.5

Comparison of Connector Systems

Technical data	4.3-10	2.2-5	NEX10®
IEC standard	61169-54	61169-66 ¹⁾	61169-XX ²⁾
Operating frequency	6 GHz	6 GHz	20 GHz
Cut-off frequency	13 GHz	26 GHz	21 GHz
Passive intermodulation (IM3) @ 2 x 20 W	Typ. ≤ -166 dBc	Typ. ≤ -166 dBc	Typ. ≤ -166 dBc
Insulation resistance (initial)	≥ 5 GΩ	≥ 3 G Ω	$5 \ge G\Omega$
Test voltage at sea level	2.5 kV	1.5 kV	2.5 kV
Working voltage at sea level	1.8 kV	1.0 kV	1.4 kV
Power rating @ 85° C / 185° F	700 W @ 1 GHz 500 W @ 2 GHz	210 W @ 1 GHz 150 W @ 2 GHz	140 W @ 1 GHz 100 W @ 2 GHz
Outer conductor contact type	Bushing (on female side)	Bushing (on female side)	Bushing (on male side)
Coupling mechanism	Screw, hand screw, push-pull	Screw, hand screw, push-pull	Screw, push-pull
Tightening torque	5 Nm (screw version)	3 Nm (screw version)	1.5 Nm (screw version)
Test torque	7 Nm (screw version)	4 Nm (screw version)	5 Nm (screw version)
Tensile strength of coupling mechanism	450 N	200 N	150 N
Mechanical service life (matings)	100	100	100
Flange size	Square: 1 inch 25.4 mm	Square: 11/16 inch 17.4 mm	Rectangular: 1/2 x 11/16 inch 12.7 x 17.4 mm
Temperature range	-40° to +185° F -40° to +85 °C	-40° to +185° F -40° to +85 °C	-40° to +185° F -40° to +85 °C
Protection rating (mated)	IP 68	IP 68	IP 68
Interface example			

¹⁾ 2.2-5 was submitted in 2017 to DKE (the German standards organization for electrical engineering, electronics and IT) to get it standardized by the IEC.
²⁾ NEX10[®] was submitted in 2019 to DKE to get it standardized by the IEC.



HIGH FREQUENCY PERFORMANCE WORLDWIDE

SPINNER designs and builds cutting-edge radio frequency systems, setting performance and longevity standards for others to follow. The company's track record of innovation dates back to 1946, and many of today's mainstream products are rooted in SPINNER inventions.

Industry leaders continue to count on SPINNER's engineering excellence to drive down their costs of service and ownership with premium-quality, off-the-shelf products and custom solutions. Headquartered in Munich, Germany, the global frontrunner in RF components remains the first choice in simple-yet-smart RF solutions.

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